

QUICK REVISION MODULE (UPSC PRELIMS 2022) GEOGRAPHY CORAL REEFS



CORAL REEFS

"CORAL" ARE MADE UP OF POLYPS. CORALS CONTAIN ALGAE CALLED ZOOXANTHELLAE. THEY BOTH LIVE IN A SYMBIOTIC RELATIONSHIP.



TYPES OF CORALS

Hard coral

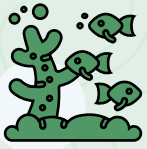
Also known as Stony corals and Hermatypic coral. They produce a rigid skeleton made of calcium carbonate in crystal form called aragonite. They are Reef building corals.



Soft coral

Ahermatypic coral, do not produce a rigid calcium carbonate skeleton and do not form reefs. Soft coral colonies tend to resemble trees, bushes, fans, whips, and grasses.





CORAL FORMATION AND TYPES



Fringing

Forming border along the shoreline and surrounding islands



Barrier

They are separated from their adjacent land mass by a lagoon of open, often deep water



Atoll

Atolls are circular or oval, with a central lagoon.

CONDITIONS FOR GROWTH OF CORALS

1. Warm water (70–85° F or 21–29° C). It is possible for soft corals to grow in places with warmer or colder water.
2. Clear and shallow water.
3. Corals need salt water to survive, so they also grow poorly near river openings with fresh water runoff.
4. Other factors – availability of hard-bottom substrate and the availability of food such as plankton.

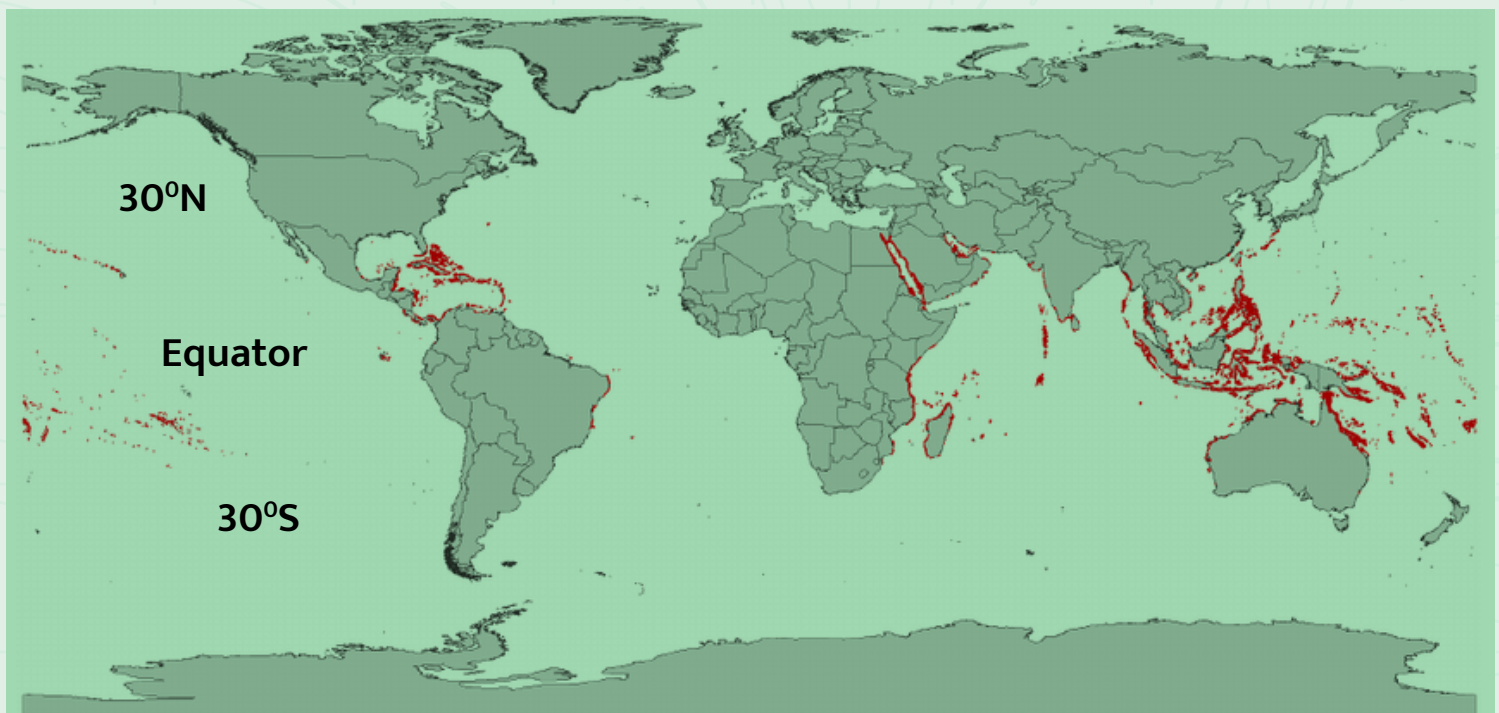
IMPORTANCE OF CORAL ECOSYSTEM

1. They are referred as Rainforests of the Sea.
2. Coral reefs dissipate much of the force of incoming waves.
3. Contribute to local economies through tourism.
4. Coral ecosystems produce beneficial chemical compounds and medicines.

THREATS TO CORALS

1. Rising temperatures and ocean acidification.
2. Demand for fishery resources.
3. Pollution Impacts - on coral reef ecosystems include increased sedimentation, nutrients, toxins, and pathogen introduction.
4. other threats like coral disease; tropical storms; tourism and recreation; vessel damage; marine debris, and aquatic invasive species.

GLOBAL DISTRIBUTION OF CORALS



REGION	TYPE OF REEF
Andaman & Nicobar Islands	Fringing Reefs
Gulf Of Mannar (Tamil Nadu)	Fringing Reefs
Gulf of Kutchh (Gujarat)	Fringing Reefs
Lakshadweep Islands	Atolls

